Sheetless Music Theory

BASIC MUSIC CONCEPTS

Pitch / Note

A perceptual property that allows the ordering of sounds on a frequency-related **scale**.

Rhythm

Generally means a "movement marked by the regulated succession of **strong** or **weak** elements and **rests**.

Melody

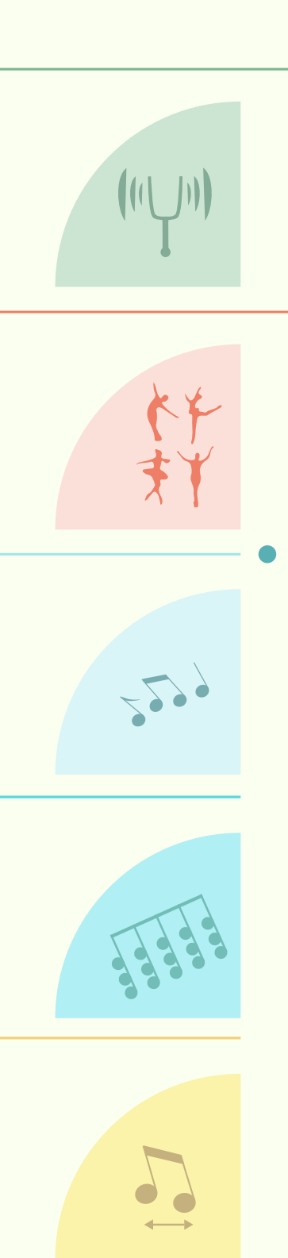
A linear succession of musical **tones** that the listener perceives as a single entity.

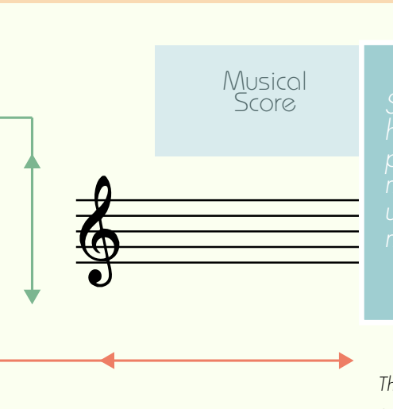
Harmony

The use of simultaneous pitches, resulting in **chords**.

Interval

The difference between two **pitches**.




Musical Score

Sheet music is a handwritten or printed form of music notation that uses modern musical symbols.

The pitch is written vertically and the rhythm horizontally.

SCALES

A scale is any set of musical notes ordered by fundamental frequency or pitch. A scale ordered by increasing pitch is an ascending scale, while descending scales are ordered by decreasing pitch.

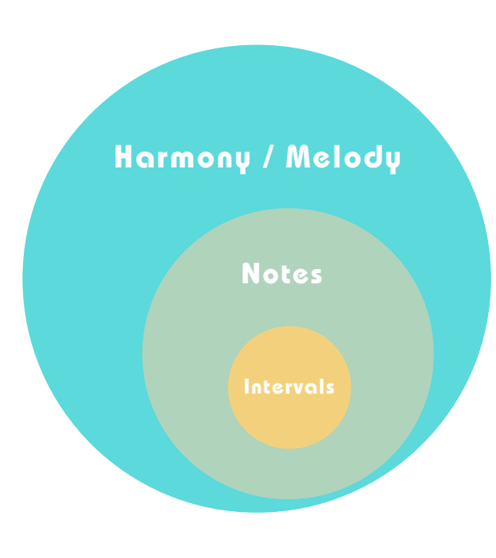
NOTES & INTERVALS

It's very important that you learn intervals before you learn chords.

Chords are typically defined as the combination of intervals starting from a common note called the root of the chord.

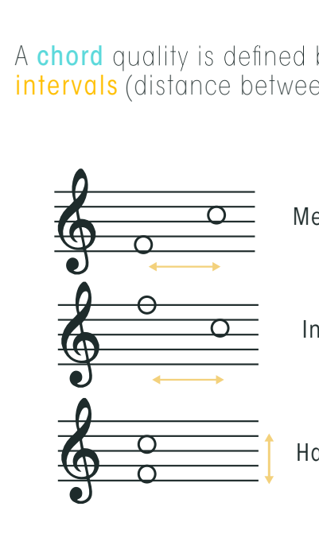
sharp
b flat

Letter names are modified by the accidentals. A **sharp** raises a note by a semitone, and a **flat** lowers it by the same amount.



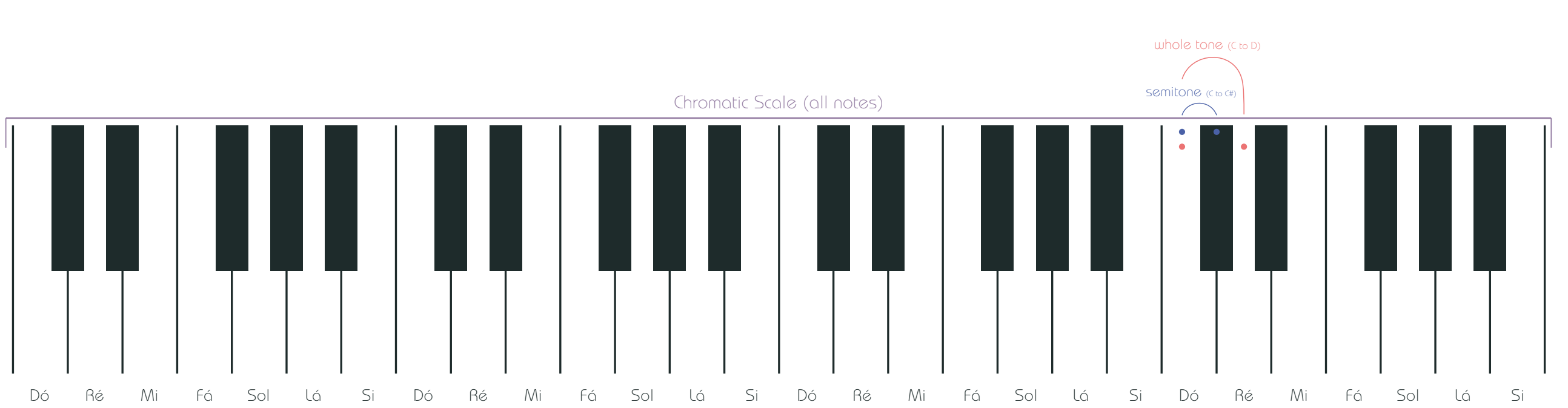
Harmony / Melody
Notes
Intervals

A chord quality is defined by the quality of its intervals (distance between each note).



Melodic Interval
Inverted Interval
Harmonic Interval

A **semitone** is any interval between two adjacent notes in a **chromatic scale**, a **whole tone** is an interval spanning two semitones, for example:



Chromatic Scale (all notes)
whole tone (C to D)
semitone (C to C#)
Dó
Ré
Mi
Fá
Sol
Lá
Si
Dó
Ré
Mi
Fá
Sol
Lá
Si
Dó
Ré
Mi
Fá
Sol
Lá
Si
A
B
C
D
E
F
G

The eighth note, or octave is given the same name as the first, but has double its frequency.

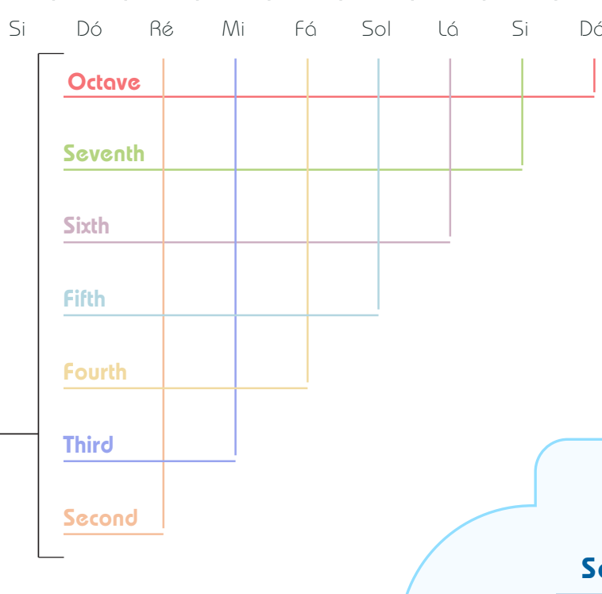
In traditional music theory within the English-speaking and Dutch-speaking world, pitch classes are typically represented by the first seven letters of the Latin alphabet.

The most common naming scheme for intervals describes two **properties** of the interval

Qualities:

- Perfect
- Major
- Minor
- Diminished
- Augmented

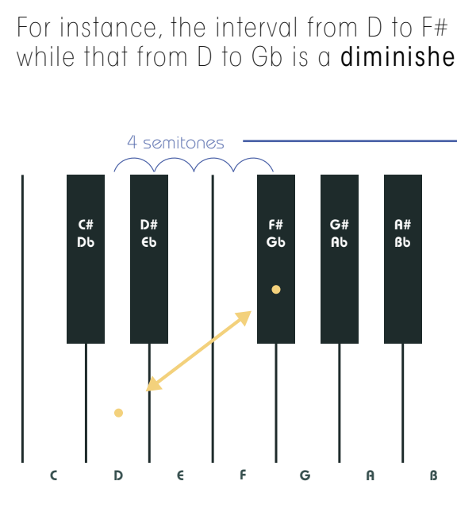
Numbers



Octave
Seventh
Sixth
Fifth
Fourth
Third
Second

Intervals with different names may span the same number of semitones, and may even have the same width.

For instance, the interval from D to F# is a **major third**, while that from D to Gb is a **diminished fourth**.

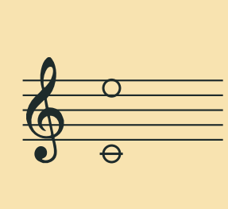


4 semitones
C# Db
D# Eb
F# Gb
G# Ab
A# Bb
C
D
E
F
G
A
B

Intervals are measured by the amount of **semitones**.

Semitones	Major(M) Minor(m) Perfect(P)		Diminished(d) Augmented(A)	
0	Perfect Unison	P1	Diminished Second	d2
1	Minor Second	m2	Augmented Unison	A1
2	Major Second	M2	Diminished Third	d3
3	Minor Third	m3	Augmented Second	A2
4	Major Third	M3	Diminished Fourth	d4
5	Perfect Fourth	P4	Augmented Third	A3
6			Diminished Fifth Augmented Fourth	d5 A4
7	Perfect Fifth	P5	Diminished Sixth	d6
8	Minor Sixth	m6	Augmented Fifth	A5
9	Major Sixth	M6	Diminished Seventh	d7
10	Minor Seventh	m7	Augmented Sixth	A6
11	Major Seventh	M7	Diminished Octave	d8
12	Perfect Octave	P8	Augmented Seventh	A7

Consonant **Dissonant**


Compound Interval

A simple interval is an interval spanning at most one octave. Intervals spanning more than one octave are called compound intervals.

In the example above, a C and a E (in the next octave) it's a **major tenth**.

Consonance and dissonance are relative terms that refer to the stability, or state of repose, of particular musical effects.

Dissonant intervals are those that cause tension, and desire to be resolved to consonant intervals.

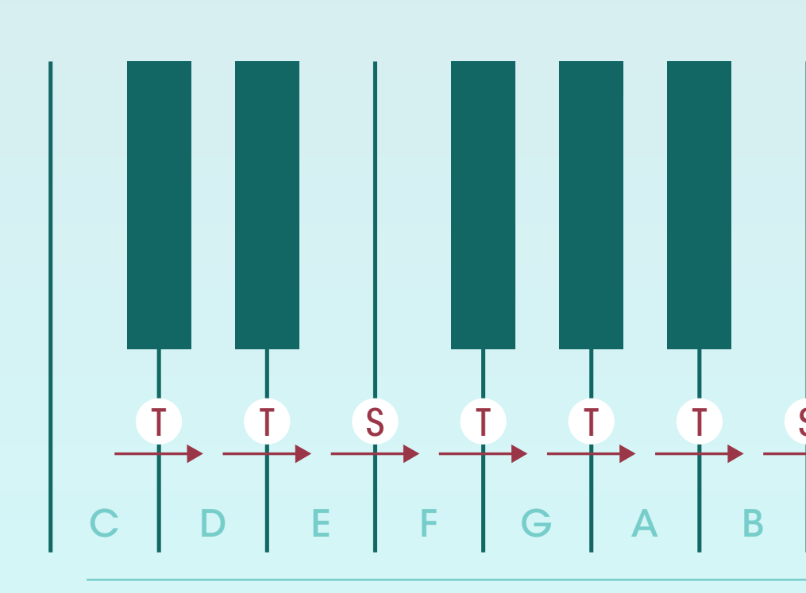
Basic Scales

Scales are generally considered to span a single octave, with higher or lower octaves simply repeating the **pattern**, which is defined by **scale steps** (intervals in a scale).

T - Whole Tone
S - Semitone

Major Scale

Example: C Major

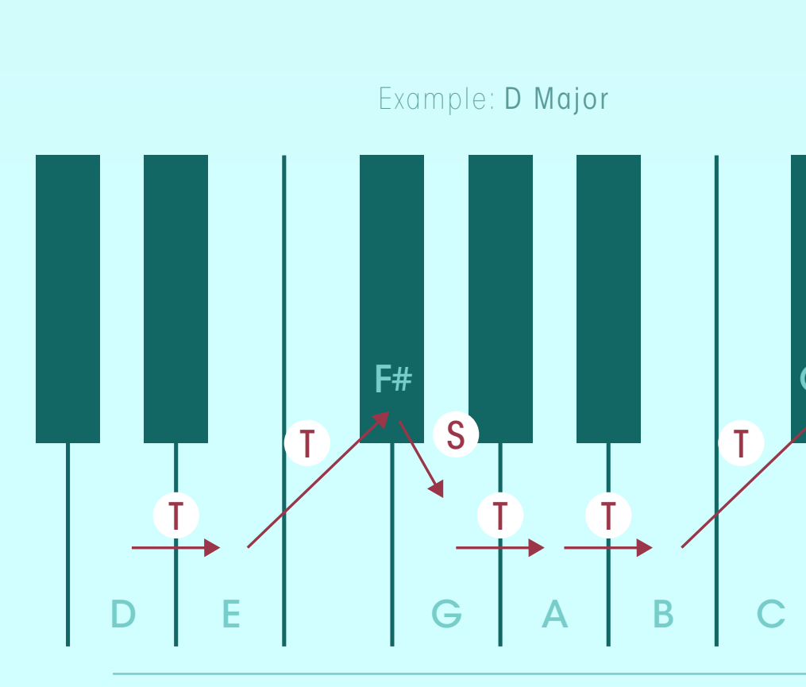


T
T
S
T
T
T
S
C
D
E
F
G
A
B
C
Octave

The major scale (or Ionian) scale is one of the most commonly used scales.

The simplest major scale to write is C major, the only major scale not to require sharps (#) or flats (b).

Example: D Major



F#
C#
T
T
S
T
T
T
S
D
E
G
A
B
C
D
Octave

Often, part or all of a musical work including melody and/or harmony, is built **using the notes of a single scale**, which can be conveniently represented on a staff with a standard **key signature**.

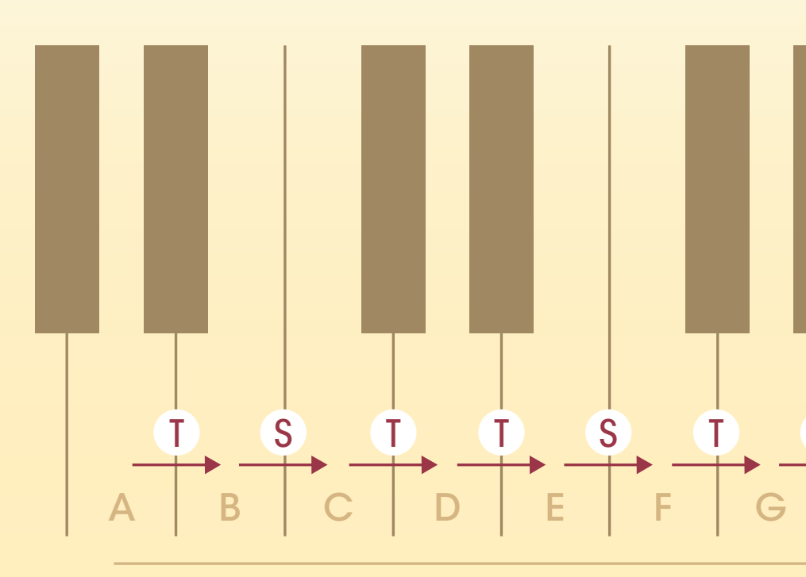
A specific scale is defined by its characteristic interval pattern and by a special note, known as its **first degree** (or tonic). The tonic of a scale is the note selected as the beginning of the octave, and therefore as the beginning of the adopted interval pattern.

Major Scale

S 4th → 5th
7th → 8th

Minor Scale

Example: A Minor

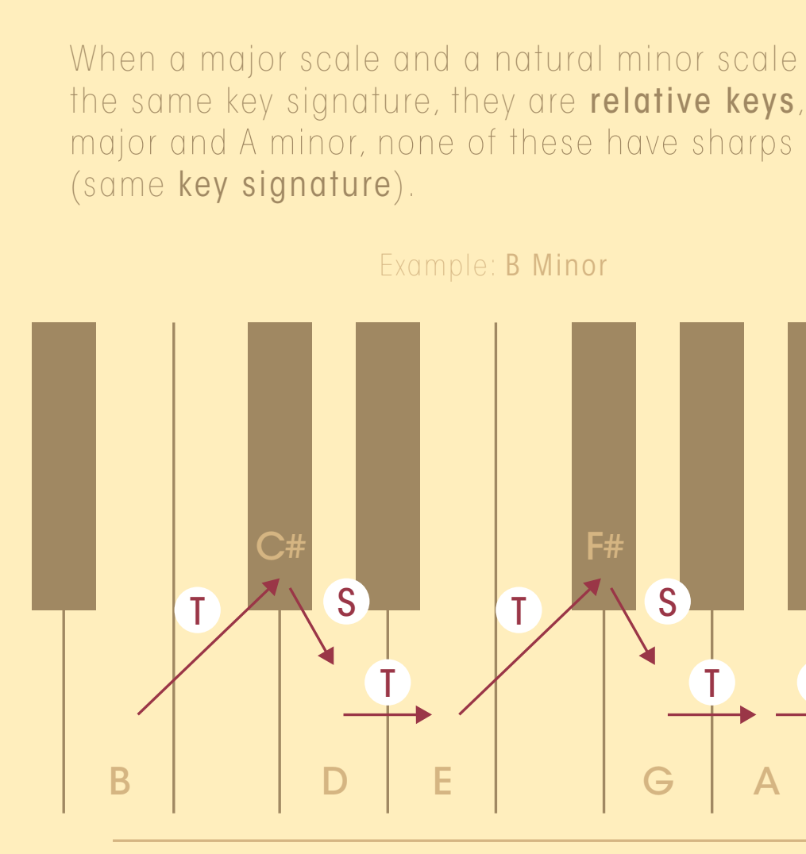


T
S
T
T
S
T
T
A
B
C
D
E
F
G
A
Octave

The natural minor scale is also known as Aeolian scale.

When a major scale and a natural minor scale have the same key signature, they are **relative keys**, like C major and A minor, none of these have sharps or flats (same **key signature**)

Example: B Minor



C#
F#
T
S
T
T
S
T
T
B
D
E
G
A
B
Octave

A harmonic minor scale differs from a natural minor scale in that the **seventh note is raised** one semitone, and it's also used very often.

Every relative minor is a major sixth ahead from it's relative major (like A to C and B to D, as explained in the examples).

These share the same notes, but start in a different tonic.

Minor Scale

S 2nd → 3rd
6th → 7th

CHORDS

A chord is any harmonic set of **three or more** notes that is heard as if sounding simultaneously.

An arpeggio is a musical technique where notes in a chord are played or sung in sequence, one after the other.

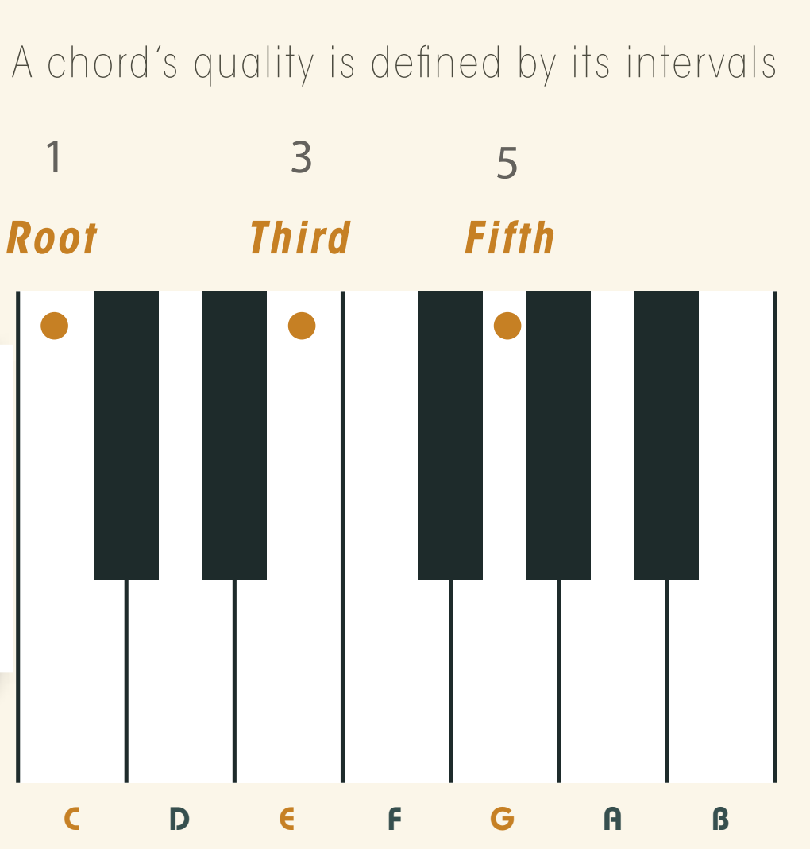
HOW TO CREATE

Triads

(a set of three notes that can be stacked in *thirds*)

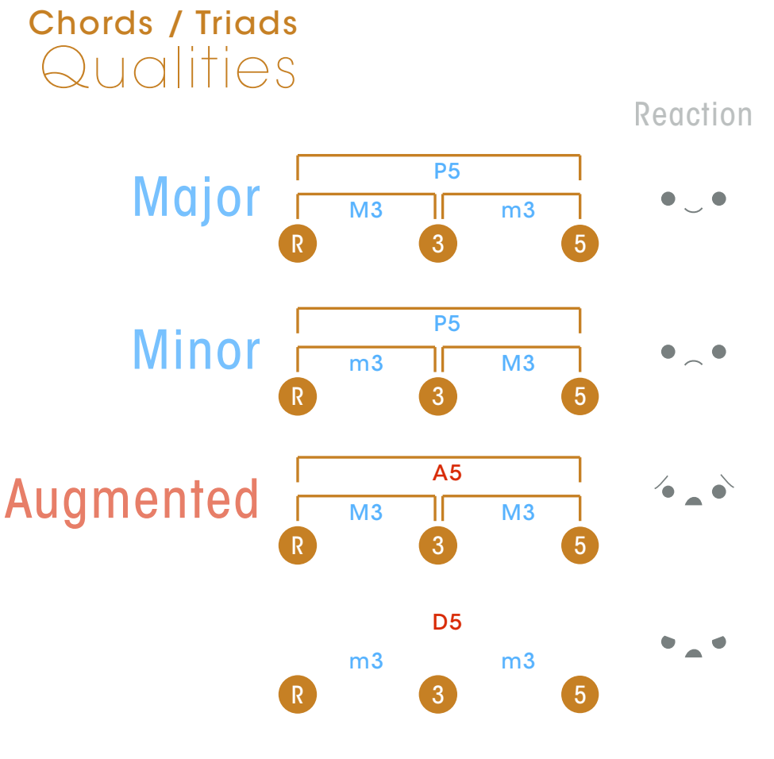
A chord's quality is defined by its intervals

Example: C major



1
3
5
Root
Third
Fifth
C
D
E
F
G
A
B
M3
m3
P5

Chords / Triads
Qualities



Reaction
Major
P5
M3
m3
R
3
5
Minor
P5
m3
M3
R
3
5
Augmented
A5
M3
M3
R
3
5
D5
m3
m3
R
3
5
Consonant
Dissonant

Examples:

Root	Major	Minor	Augmented	Diminished
C	C-E-G	C-Eb-G	C-E-G#	C-Eb-Gb
D	D-F#-A	D-F-A	D-F#-A#	D-F-Ab
E	E-G#-B	E-G-B	E-G#-C	E-G-Bb
F	F-A-C	F-Ab-C	F-A-C#	F-A-B
G	G-B-D	G-Bb-D	G-B-D#	G-B-Db
A	A-C#-E	A-C-E	A-C-F	A-C-Eb
B	B-D#-F#	B-D-F#	B-D#-G	B-D-F

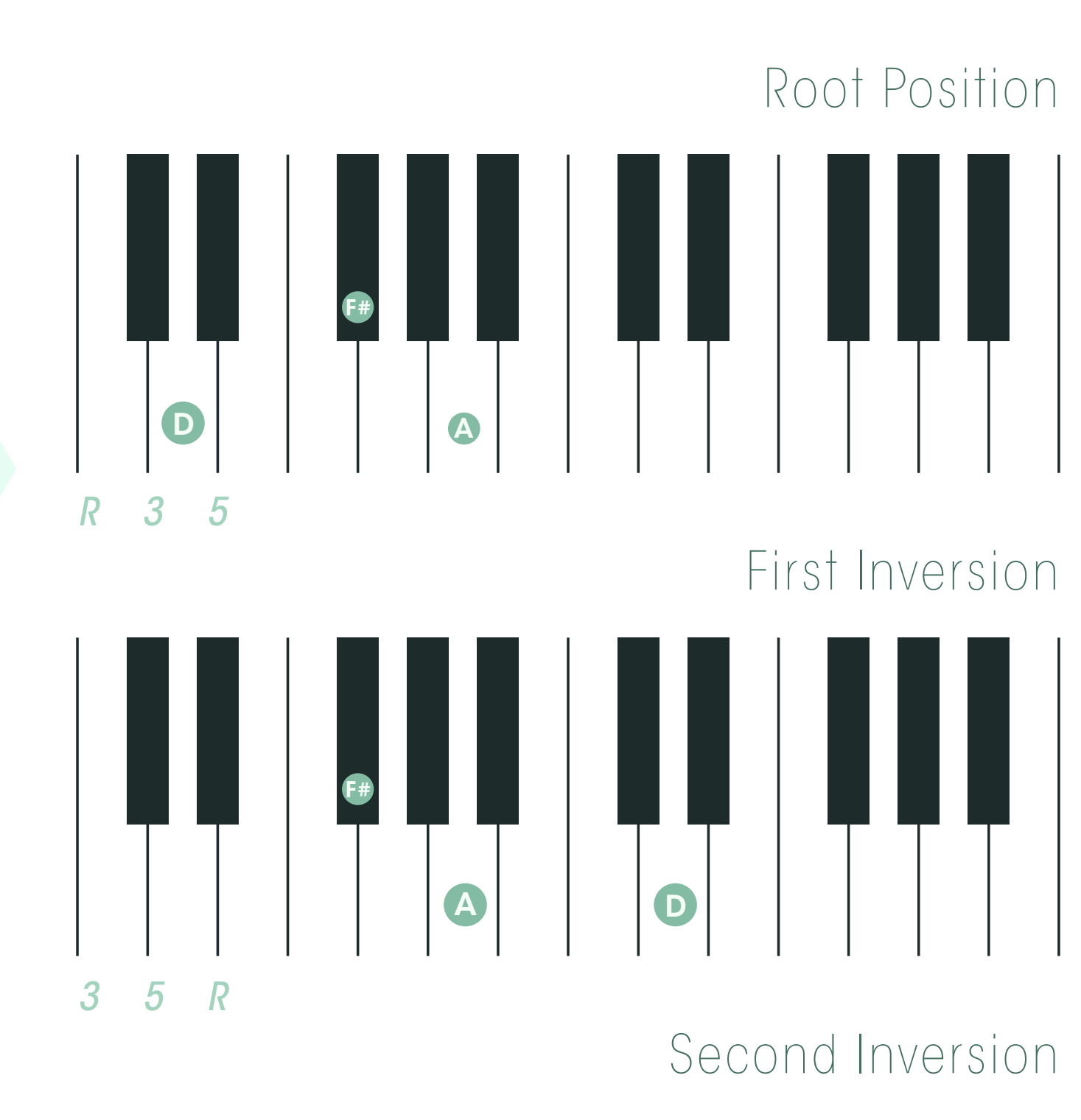
INVERSIONS

A chord's inversion describes the relationship of its bass to the other tones in the chord.

For instance, a D major triad contains the tones D, F# and A, its inversion is determined by which of these tones is the **bottom** note in the chord.

An interval is inverted by raising or lowering either of the notes using displacement of the octave (or octaves) so that both retain their names

In an inverted chord, the root is not in the bass (the lowest note).



Root Position
R 3 5
D
F#
A
First Inversion
3 5 R
F#
A
D
Second Inversion
5 R 3
A
D
F#

KEY SIGNATURES

Tonality is a system/language of music in which specific hierarchical pitch relationships are based on a **key center/signature**.

In musical notation, a key signature is a set of sharp or flat symbols placed together on the staff. Key signatures are generally written immediately after the clef at the beginning of a line of musical notation

Imagine that someone tells you that a certain song's tonality is E Major

E Major Scale

E F# G# A B C# D# E
T T S T T T S

This are the notes that will form the chords in that song and those with which you can create melodies in it.

D E F# G A B C# D
T T S T T T S

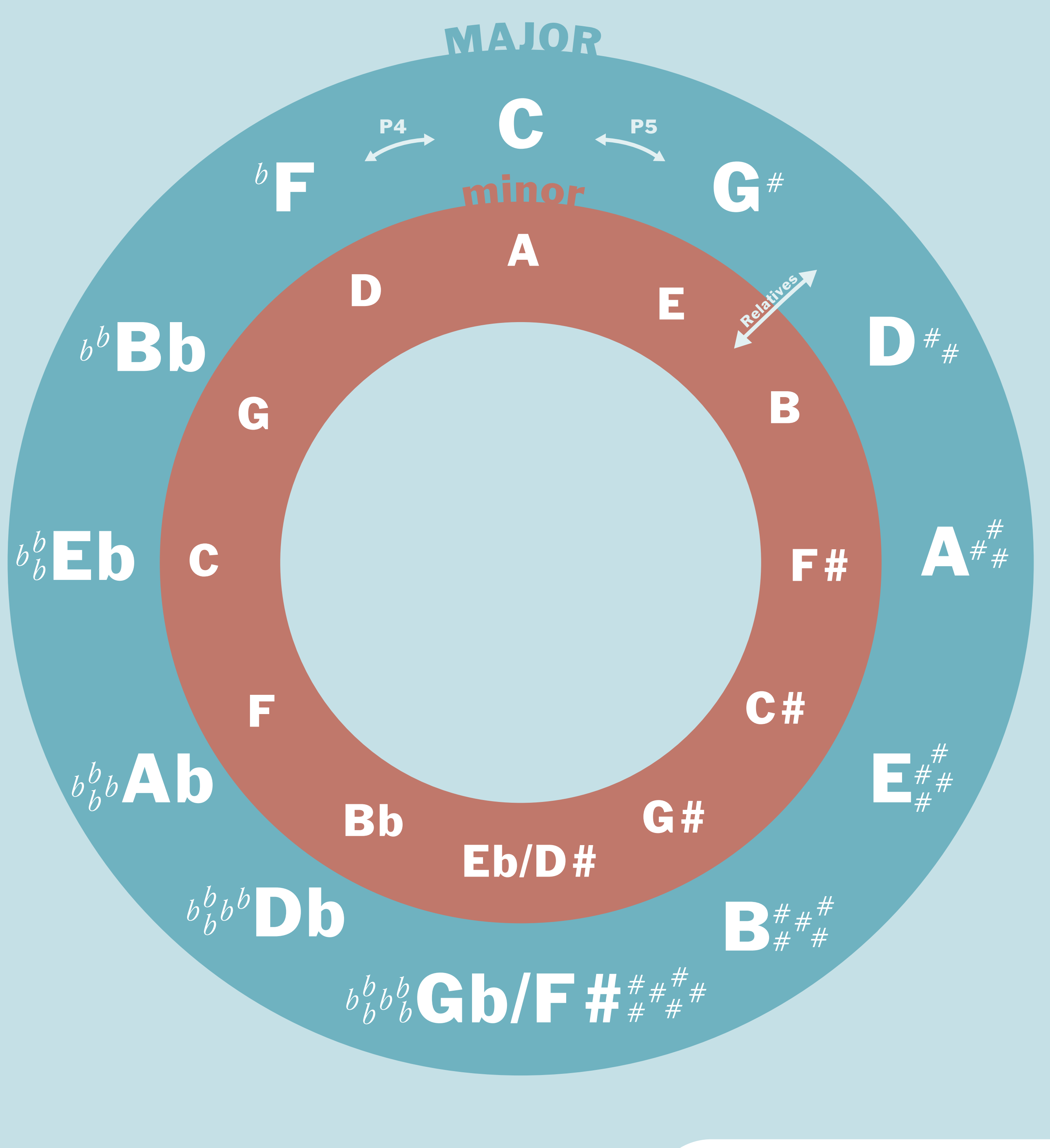
D Major Scale

Circle of Fifths

The circle of fifths (or fourths) is a visual representation of the relationships among the 12 tones of the chromatic scale, their corresponding **key signatures**, and the **associated major and minor keys**.

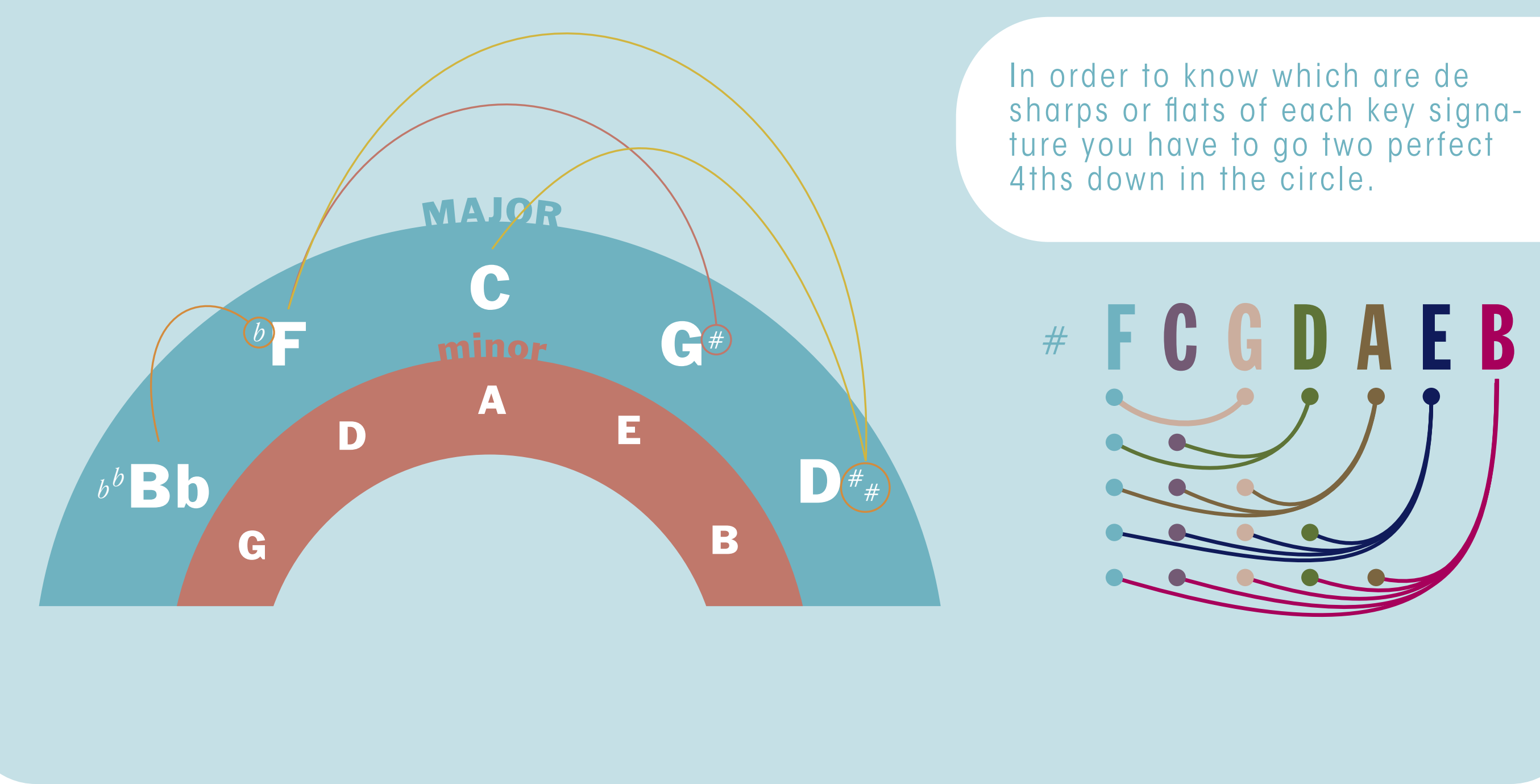
The Cicle

F C G D A E B
b B E A D G C F



MAJOR
minor
P4
P5
C
G#
D##
A###
E####
B#####
Gb/F# ######
bbbbbDb
bbbbAb
bbbEb
bbBb
bF
A
E
B
F#
C#
G#
Eb/D#
Bb
F
C
G
D
Relatives

In order to know which are de sharps or flats of each key signature you have to go two perfect 4ths down in the circle.



MAJOR
C
minor
bF
G#
bbBb
D##
A
D
E
G
B
# F C G D A E B